

REMARKS/ARGUMENTS

Applicants have reviewed and considered the Office Action dated April 1, 2009. In the Office Action, claims 1 through 13 were subject to an election of species requirement.

Claims 1-3, 11 and 12 remain in examination.

Claims 4-10 and 13 have been withdrawn herein **without** prejudice pending rejoinder.

Therefore, claims 1-13 remain pending in the application.

No new subject matter has been added.

Species

The application contains claims directed to more than one species of the generic invention. The species are as follows:

1. a strain having deletion of genes coding for quinine oxidoreductase or soluble transhydrogenase or both; Claims 1-3, 11, 12;
2. a strain having deletion of genes for phosphoglucose isomerase or phosphofructokinase or both; Claims 1 and 4, 11;
3. a strain having modification of dihydrolopoamide dehydrogenase or glyceraldehyde 3-phosphate dehydrogenase or both; Claims 1 and 5, 11;
4. a strain having overexpressed genes coding for glucose 6-phosphate dehydrogenase or 6-phosphogluconolactonase or 6-phosphogluconate dehydrogenase or isocitrate dehydrogenase or membrane-bound transhydrogenase, or any combination thereof; Claims 1 and 6, 11;
5. a strain having deletion of gene(s) coding for 6-phosphogluconate dehydratase or maltase synthase or isocitrate lyase or isocitrate dehydrogenase kinase/phosphate or any combination thereof; Claims 1 and 7, 11;
6. a strain selected from *Aspergillus*, *Bacillus*, *Brevibacterium*, *Clostridium*, *Corynebacterium*, *Escherichia*, *Gluconobacter*, *Penicillium*, *Pichia*, *Pseudomonas*, *Rhodococcus*, *Saccharomyces*, *Streptomyces*, *Xanthomonas*, or *Candida*; Claims 1, 8-10, 11;
7. a substance made which is an amino acid, vitamin, sterol, flavonoid, fatty acid, organic acid, polyol or hydroxyester; Claims 1, 13.

Claims 1-13 are generic.

ELECTION OF SPECIES

Applicants hereby elect group 1, including Claims 1-3, 11 and 12 for further examination **with** traverse. Further, Applicants note that claims 1-13 read on the elected species.

Traversal of Election

The required elections now being made, Applicants respectfully submit that there are several reasons identified by the Office to justify the election requirement that the Applicants believe are in error. Specifically, the Office cites to PCT Rule 13.1 for the concept that the “species listed above do not relate to a single general inventive concept.” However, while Applicants submit the claims do relate to a single inventive concept, as discussed below, the Office has, in fact, mis-represented PCT Rules 13.1 and 13.2.

PCT Rule 13.1: The international application shall relate to one invention only or to a group of inventions so linked as to form a single general inventive concept (“requirement of unity of invention”).

PCT Rule 13.2: Where a group of inventions is claimed in one and the same international application, the requirement of unity of invention referred to in Rule 13.1 shall be fulfilled only **when there is a technical relationship among those inventions involving one or more of the same or corresponding special technical features**. The expression “special technical features” shall mean those technical features that define a contribution which each of the claimed inventions, considered as a whole, makes over the prior art.
(emphasis added).

In the instant case, the invention is directed to optimization of micro-organism strains for the biotransformation production of molecules having NADPH-consuming biosynthetic pathways. Further, this feature is *required* by claim 1, e.g., “a micro-organism characterized in that one or more of its NADPH-oxidizing activities have been limited.” In addition, all the remaining claims, e.g., 2-13, are dependent on claim 1. Finally, the Office itself has identified claim 1 as comprising a member of all of the identified species. Therefore, molecules having

NADPH-consuming biosynthetic pathways must comprise a technical feature which is common to all the identified species as identified by the Office. Thus, the requirements of unity of invention as defined by Rule 13.2 and required by PCT Rule 13.1 have been met and all the claims should be examined together.

Further, as issued by the Office, the election requirement states that “the species lack the same or corresponding special technical features” because “the species are drawn to distinct genes encoding distinct products, or distinct bacterial species or distinct methods of producing distinct compounds. The genes, species and compounds have different and distinct structures having no common features.” Applicants note that not only is this statement untrue, it is further not corrected by the Office’s election requirement.

Specifically, as pointed out, all the claims are directed to bacterial strains in which one or more of its NADPH-oxidizing activates have been limited. Thus, the species do have common features. Further, the Office, in making its election requirement, groups all the strains of microorganism recited in claim 10 as member of group 6. Consequently, the Office’s statement that the claims are drawn to “distinct bacterial species” would appear to be a moot reason to support election because, since all the bacterial species are identified in group 6, election of group 6 would not afford any amelioration of this grounds for restriction.

In addition, Applicants note that the conclusion that there is unity of invention amongst the different embodiments of the claims is independently supported by the European Patent Office which did not recognize any lack of unity between the claims as is supported by the Preliminary Search Report issued by the International Bureau and provided herewith in the Supplemental IDS attached with this response.

The Election Requirement being therefore overcome, withdrawal of the requirement and examination of all the claims in this application is respectfully.

Applicants acknowledge that upon the allowance of a generic claim, the Applicants will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim.

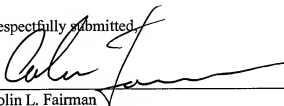
Conclusion

This application now stands in allowable form and reconsideration and allowance is respectfully requested.

This response is being submitted on or before May 26, 2009, with the fee of \$65.00 for the one-month extension, making this a timely response. It is believed that no additional fees are due in connection with this filing. If the Commissioner determines that any fee under 37 C.F.R. §§ 1.16 to 1.21 is required for any reason, the Commissioner is hereby authorized to deduct said fee from Fulbright & Jaworski L.L.P. Account No.: 50-1212/CABR-023/US.

CUSTOMER NUMBER **38824**

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Colin L. Fairman', is written over a horizontal line.

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